Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Third Periodic Review of the	)	MM Docket No. 07-91
Commission's Rules and Policies	)	
Affecting the Conversion	)	
to Digital Television	)	

To: The Commission

COMMENTS OF
UNIVISION COMMUNICATIONS INC.

UNIVISION COMMUNICATIONS INC.

Scott R. Flick
Emily Jane Helser

Its Attorneys

Pillsbury Winthrop Shaw Pittman LLP
2300 N Street, NW
Washington, DC 20037
(202) 663-8000

Karl D. Lahm, P.E.
Engineering Manager
Univision Television Group, Inc.
P.O. Box 647
Lake Villa, IL 60046
(847) 245-8699

Dated: August 15, 2007

SUMMARY

As one of the largest owners of television broadcast stations, nearly all of which air Spanish-language programming, Univision Communications Inc. ("Univision") has carefully studied and planned for the transition to digital television, and is therefore keenly aware of the challenges involved. These challenges will be even more daunting for Univision's Spanish-speaking viewers, who are more than twice as likely as the average viewer to rely on over-the-air reception for all of their television programming.

In its Comments, Univision notes that the major obstacle to timely completing the digital transition is the limited availability of equipment design, manufacturing, and installation resources needed to physically replace existing broadcast facilities nationwide with permanent digital facilities. Unfortunately, a number of the proposals made by the Commission in this proceeding would increase, rather than alleviate, those shortages. Chief among these is the Commission's proposal to place a "freeze" on the filing of all applications for permanent digital facilities that extend a station's signal contour in any direction beyond its DTV table of allotments contour, as well as the Commission's proposal to require that construction of all permanent channel DTV facilities be completed by February 17, 2009.

By making a few key modifications to its proposals, however, the Commission can reduce the overall processing burden on its staff, ensure that the public will not face reduced broadcast service after the transition, reduce the disruption of broadcast service that will occur in the months and weeks leading up to February 17, 2009, and alleviate the shortage of key equipment and skilled personnel that will otherwise occur if all stations are required to move to

their allotted final DTV channel and operating parameters at the same time. This can be done by:

> (1) exempting from the Commission's proposed application "freeze" those applications for stations moving to their analog channel that wish to utilize their existing analog antenna, and those applications for stations seeking to use an existing multi-station antenna for their permanent digital facilities, where impermissible interference will not be created;
>
> (2) exempting from the proposed application "freeze" those applications by stations without an interim DTV channel, as well as applications by stations moving from their assigned out-of-core DTV channel to an in-core channel, where impermissible interference beyond grandfathered levels will not be created; and
>
> (3) permitting stations moving to a new DTV channel to continue to operate on their transitional DTV channel for up to twelve months following the transition date where the interim DTV channel is in-core and no new interference would be created.

These three simple changes, two of which merely contemplate processing modification applications in the normal course, and the last of which maintains the status quo for twelve additional months where no new interference would occur, will greatly facilitate the prompt and efficient conclusion of the transition by minimizing disruption of broadcast service to the public while reducing hundreds of stations' simultaneous need for new equipment, tower crews, and other scarce installation resources in the short time leading up to February 17, 2009.

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COMMENTS OF UNIVISION COMMUNICATIONS INC.

Univision Communications Inc. ("Univision"), by its attorneys, hereby submits these Comments in response to the Commission's *Notice of Proposed Rulemaking* in the above-captioned proceeding ("*Notice*").[1] The *Notice* invites comment on various issues surrounding the digital transition; in particular, what steps need to be taken by the Commission to ensure a successful and timely transition to digital television. As discussed below, the largest obstacle by far in timely completing the transition is the physical replacement of existing broadcast facilities with permanent digital facilities. Equipment manufacturing constraints and the limited number of tower crews and other key equipment installation resources available between now and the transition date will impede stations' movement to final DTV channels by February 17, 2009 unless the Commission modifies its rules and policies to allow licensees the flexibility necessary to efficiently complete that transition.

With a few key changes, the Commission can reduce the overall processing burden on its staff, ensure that the public will not face reduced broadcast service after the transition, reduce the

[1] *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Notice of Proposed Rulemaking, FCC 07-70, MB Docket No. 07-91 (May 18, 2007).

disruption in broadcast service that will occur in the months and weeks leading up to February 17, 2009, and alleviate the shortage of key equipment and skilled personnel that will otherwise occur if all stations are required to modify to their allotted final DTV channel and operating parameters at the same time.

As one of the largest owners of television broadcast stations, nearly all of which air Spanish-language programming, Univision has carefully studied and planned for the transition, and is therefore keenly aware of the challenges involved. These challenges may be even more daunting for Univision's Spanish-language viewers, who are more than twice as likely as the average viewer to rely on over-the-air reception for all of their television programming. Univision believes, however, that these challenges for both broadcasters and the public can be greatly reduced by:

> (1) exempting from the Commission's proposed application "freeze" those applications for stations moving to their analog channel that wish to utilize their existing analog antenna, and those applications for stations seeking to use an existing multi-station antenna for their permanent digital facilities, where impermissible interference will not be created;
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> (2) exempting from the proposed application "freeze" those applications by stations without an interim DTV channel, as well as applications by stations moving from their assigned out-of-core DTV channel to an in-core channel, as long as no impermissible interference to other stations will be created; and
>
> (3) permitting stations moving to a new DTV channel to continue to operate on their transitional DTV channel for up to twelve months following the transition date where the interim DTV channel is in-core and no new interference would be created.

These three simple changes, two of which merely contemplate processing modification applications in the normal course, and the last of which maintains the status quo for twelve additional months where no new interference would occur, will greatly facilitate the prompt and efficient conclusion of the transition by minimizing disruption of broadcast service to the public

while reducing hundreds of stations' simultaneous need for new equipment, tower crews, and other scarce installation resources in the short time leading up to February 17, 2009.

I. The Commission's Twin Goals of Replicating Existing Broadcast Service And Completing the Digital Transition By February 17, 2009 Will Not Be Met Under the Conditions Proposed in the *Notice*

While the Commission's objective of finalizing all channel changes on the date analog broadcasting ceases is superficially appealing, it is impractical under the constraints facing licensees. Throughout its planning for the digital television transition, the Commission has maintained two overarching goals. The Commission acknowledges these goals once again in the *Notice*, requesting comment on how the Commission can "ensure that broadcasters (1) complete construction of their post-transition facilities in a timely and efficient manner; and (2) have in place (in-core) facilities that can reach their viewers."[2] Unfortunately, achieving these goals will not be possible unless the Commission's final rules recognize the need to address the most substantial obstacle to meeting these goals: the difficulty in stations nationwide simultaneously seeking to design, purchase and install the equipment necessary to operate on their permanent DTV channels while also replicating their analog service areas so that the public does not lose existing broadcast service.

This challenge is compounded by the Commission's stated desire to preserve existing analog service for the public as long as possible,[3] which raises particularly difficult issues when a station's analog equipment must be removed to make way for its new digital equipment (due to building and tower space limitations, etc.). Adopting the appropriate rules will not only ensure a smooth transition without a loss of service to the public, but will also reduce broadcasters' costs in achieving their final DTV facilities. Whether those reduced costs allow the financial survival

[2] *Notice* at ¶ 34.

[3] *See Notice* at ¶ 47.

of transitioning stations that cannot afford to build yet another digital facility, or preserve a station's financial resources for programming, the public benefits.

A. The Current Transition Proposals Fail to Consider the Limited Availability of Design, Manufacturing, and Installation Resources Over the Next Eighteen Months

The practical obstacles to timely completing the transition stem from the need for stations to contract for and accomplish the design, manufacture and installation of the equipment needed to operate with the facilities specified in the Commission's final DTV Table of Allotments. This process is already complex, particularly with regard to antennas,[4] and the design and manufacturing resources, as well as tower crews, are not available in sufficient quantities for stations all over the country to accomplish that task by February 17, 2009, just eighteen months from now.

For example, Univision owns thirty-seven full-service television stations. Of these, twenty-two will be changing DTV channels or commencing DTV operations for the first time when analog transmissions end. Nationwide, approximately 637 stations are facing a similar situation, and all of these stations will be competing for the precious resources available to design, manufacture, and install the necessary DTV equipment. At present there are, at most, four major transmitter manufacturers, three major antenna and transmission line manufacturers, and seven major tower or rigging installers.[5] Under the best of circumstances, the construction of new transmission facilities is time-consuming. Any transition proposal premised upon all of these stations simultaneously constructing new facilities by February 17, 2009, particularly when

[4] Many stations' present DTV facilities use highly customized directional antenna patterns rather than "off the shelf" models. To replicate those patterns on other channels requires time-consuming modeling and development work by the antenna manufacturer. Unfortunately, the high demand for these customizations in the next eighteen months will make it difficult and costly for a station to replicate the pattern in the DTV table of allotments on its new channel, and there may be no good reason to do so where the pattern is based upon limitations of the prior channel that are inapplicable to the new channel.

[5] *The Digital Transition: The Rubber Meets the Road* (ASSOCIATION FOR MAXIMUM SERVICE TELEVISION) March 12, 2007.

the public requires that these stations continue analog broadcasting in the meantime, is wishful thinking.

By proposing in the *Notice* that no station be permitted to apply for facilities that exceed in any direction the signal contour of its DTV table of allotment facilities (thereby instituting a "freeze" on such applications),[6] the Commission implicitly requires the use of hundreds of unique new antennas that must be customized to conform to the DTV table of allotments parameters. However, just designing such a customized antenna can take months. In this process, the manufacturer's design staff uses proprietary software to generate a basic antenna configuration that comes as close as possible to the desired characteristics. Several options are typically discussed with the customer and the details of the antenna requirements refined. The design is then mocked-up in the laboratory and modified using directors, reflectors, and other physical elements to more closely achieve the desired results. This laboratory work is typically performed interactively with the customer and takes significant time. While manufacturers can work on several stations' projects simultaneously, there is a definite limit on their capacity, and only once this process has been completed can manufacturing of the actual antenna commence.

Similarly, only after this design work is completed is the station in a position to submit an application to the Commission, as the antenna pattern ultimately achieved will dictate the power level a station may request while remaining freeze-compliant. As a result, few stations attempting to use customized antennas are likely to be able to file applications within the Commission's proposed 45-day window to receive expedited processing.[7]

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[6] *Notice* at ¶ 93.

[7] *Notice* at ¶ 94. While such a station might be able to initially file based upon the DTV table of allotments parameters, it would need to subsequently file an amendment or modification to conform the radiation pattern and effective radiated power to the reality of what can be manufactured, thus burdening the FCC's processing resources with repetitive applications. Alternatively, a station could attempt to use a "standard" antenna design that does not particularly conform to its DTV table of allotments parameters,

Once an antenna is manufactured and delivered to the transmitter site, the antenna changeover from analog to digital may take weeks (assuming tower crews are available). In many cases, crews must first remove the NTSC antenna, installing a gin pole to assist in the removal of the antenna, running pulleys and cables, and disassembling as necessary. The new antenna must then be hoisted, mounted and secured, a process that can take a week. Transmission line must then be run, starting in the transmitter building and extending to the base of the digital antenna. Installation of transmitter equipment for the new facility, along with electrical service and transmission line connection, requires additional time, as does the subsequent operational testing necessary to initiate permanent operation. Should problems be discovered in the testing, they must be diagnosed, a solution mapped out, and any necessary additional equipment purchased and installed. The tests must then be repeated to ensure that the modified facility is operating in accordance with its authorization and Commission rules. Under the best of circumstances, it is a time-consuming process.

B. The February 17 Transition Date Introduces Weather as an Additional Obstacle to a Simultaneous Nationwide Move to Permanent DTV Channels in 2009

The February 17, 2009 transition date unfortunately ensures that many stations will face the worst of circumstances in changing out their analog equipment for DTV facilities. Many transmitter sites are not readily accessible during the winter, particularly to cranes and other types of heavy equipment necessary for tower rigging and equipment installation. This problem is not limited to stations in northern climes. For example, Univision station KUVE-TV in the Tucson market operates from Mount Bigelow, where many local stations' transmitter sites are located. Even though Tucson is located in southern Arizona, snow and ice make the transmitter

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but would then have to reduce power to avoid extending the contour in any direction beyond that specified in the table of allotments in order to be freeze-compliant. This could result in a significant loss of service to the public, contrary to the Commission's goal of avoiding reductions in television service. *See Notice* at ¶ 38.

site accessible only by a treaded Snowcat vehicle from roughly October until March.

Unfortunately, KUVE-TV's situation is not unusual. Univision station KFPH-TV operates from Mormon Mountain in the Phoenix market. Because KFPH-TV's transmitter site is located at an even higher elevation than the Mount Bigelow site, it is accessible only by Snowcat until April. The present analog transmitters for both KUVE-TV and KFPH-TV are not convertible to DTV, and their transmitter spaces are not large enough to accommodate a new DTV transmitter without removal of the existing equipment. Expansion of the transmitter buildings is not practical, and would be difficult in any event because of U.S. Forest Service restrictions. Many stations, especially those in northern or mountainous areas, face similar obstacles to completing the transition to a permanent channel in February.[8]

As a result, stations unable to perform any significant construction work during winter months are in a bind, particularly where a station's analog equipment must first be removed to make room for the new digital equipment. If required to commence DTV operation on a new DTV channel by February 17, 2009, such stations may have no choice but to swap out the transmitting equipment during the summer of 2008, depriving viewers of the station's analog signal six months earlier than viewers are expecting. This creates hardship for both viewers and the station, with no countervailing benefit. While Univision understands well that the date for cessation of analog broadcasting is fixed by statute, the date for moving to permanent DTV channels is not. As a result, and as is discussed further below, providing stations with some flexibility to move to their permanent channels after February 17, 2009 would eliminate the hardship on viewers and stations without any countervailing harm.

[8] Site access is only one of many winter construction issues. Accumulation of ice on a station's tower and antenna in cold weather is another major issue. Stations will find winter construction more dangerous, expensive, and difficult, particularly if trying to meet a February 17, 2009 deadline while maintaining analog service as long as possible prior to the transition.

II. As the Primary Obstacles to Completing the DTV Transition Are Construction-Related, It Is Critical to the Transition That the Commission's Proposed Freeze on Certain Applications Implementing Final DTV Channels Be Modified to Permit Licensees the Flexibility Necessary to Overcome These Obstacles

As indicated in the *Notice*, "it is critical at this juncture to focus on the completion of final DTV facilities."[9] Given the limited number of broadcast equipment manufacturers, tower crews, and installers nationwide, successful completion of the DTV transition can best be accomplished by minimizing the number of stations needing those services, particularly in the months leading up to February 2009. However, the policies tentatively proposed in the *Notice* maximize, rather than minimize, the need for stations to replace equipment, and compress those installations nationwide into the weeks leading up to February 17, 2009. In particular, the *Notice* proposes to effectively continue the current freeze on expansion of a station's coverage area by prohibiting applications implementing final DTV channels which extend in any direction a station's signal contour beyond that specified in the final DTV table of allotments.[10] The universal application of this proposed filing freeze will significantly increase the need for stations to install new equipment, and the proposed requirement for stations to complete all channel changes by February 2009 proceeds to create an unnecessary feeding frenzy for resources to install such equipment by the transition date.

Beyond increasing the expense of the transition while disrupting the public's access to existing broadcast service, this approach enhances the likelihood of a transition train wreck in which broadcasters are required by statute to cease analog broadcasting on February 17, 2009, but will not be able to initiate digital broadcasting on their permanent channel by that date for lack of available installation equipment and personnel.

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[9] *Notice* at ¶ 62.

[10] *Notice* at ¶ 93.

However, a simple modification of this approach would permit the termination of analog broadcasting by February 17, 2009 without loss of broadcast service to the public, and without overwhelming the Commission's processing staff or the engineering, manufacturing, and installation resources of antenna and transmitter suppliers nationwide. Specifically, the Commission should make three modifications to its proposed DTV transition rules and policies to prevent these obstacles from disrupting the DTV transition.

First, exempt from the Commission's proposed application freeze those applications for stations moving to their analog channel seeking to utilize their existing analog antenna, and those applications for stations seeking to use an existing multi-station antenna for their permanent digital facilities, where impermissible interference will not be created.

Second, exempt from the proposed application "freeze" those applications by stations lacking an interim DTV channel, as well as applications by stations moving from their assigned out-of-core DTV channel to an in-core channel, as long as no impermissible interference to other stations will be created.[11]

Third, permit stations moving to a new DTV channel to instead continue to operate on their transitional DTV channel for twelve months following the transition date where the interim DTV channel is in-core and no new interference would be created by the delayed move.

The reasons for, and importance of, making these three simple changes are discussed in detail below, but suffice it to say that these proposals will greatly facilitate the prompt and efficient conclusion of the transition by minimizing disruption of broadcast service to the public while reducing stations' simultaneous need for new equipment, tower crews, and other scarce installation resources in the short time leading up to February 17, 2009.

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[11] *See* Note 22, *infra* regarding Univision's related proposal as to what should be deemed impermissible interference.

A. Universal Application of the Proposed Freeze Will Increase the Processing Burden on the Commission While Forcing a Loss of Broadcast Service to the Public and/or the Installation of Unnecessary Broadcast Equipment

On August 3, 2004, the Commission released a notice that it was instituting a freeze on acceptance of any application that expands a station's coverage area in any direction, even if the geographic size of the coverage area does not increase (the "*Freeze Notice*").[12] As a result, even a minor change in transmitter site is prohibited unless the station either reduces power to keep its signal within the original contour (thereby creating loss areas in the direction it moves from), or the station contracts for the design, manufacture, and installation of a new directional antenna solely for the purpose of staying within the original contour (creating expense, delay, and a "stunted" signal that does not optimize service to the public). In many cases, it is simply not possible to design an antenna that can maintain the same coverage area while transmitting from a new site, making loss of service to the public an inevitable price of complying with the *Freeze Notice*.

In the *Freeze Notice*, the Commission stated its purpose in instituting the freeze:

> This freeze is a necessary first step to ensure a stable television database prior to the commencement of the channel election process. Prohibiting the filing of new applications and petitions requesting new channels or service areas will allow broadcasters to evaluate stations' technical parameters and thereby facilitate channel elections and the creation of a new DTV Table of Allotments.[13]

While the original purpose of the freeze has been mooted, with the final DTV table of allotments having now been released, the *Notice* in this proceeding proposes that the freeze effectively be retained throughout the transition, stating:

> We propose that stations must limit their applications to those facilities specified in the new DTV Table Appendix B, as adopted. Pursuant to this proposal,

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[12] *Public Notice, Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes*, DA 04/2446 (MB rel. Aug. 3, 2004).

[13] *Freeze Notice* at 2.

> applications requesting facilities that would serve a larger area than stations' new DTV Table Appendix B facilities would not be accepted at this time. Because the new DTV Table will have resolved the interference conflicts raised during the channel election process, we believe we would be able to process these applications without having to conduct interference analyses and without having to consider whether any applications are mutually exclusive. We seek comment on this proposal. Specifically, we seek input from any stations that may be unable to build precisely the facilities specified in the new DTV Table Appendix B (for example, if an antenna producing the exact antenna pattern described in Appendix B is not available). If such stations are prohibited from expanding beyond their DTV Table Appendix B facilities (as proposed *infra* in section V.E.), will they instead be required to reduce their facilities so significantly that they will be unable to provide adequate service? If so, should we allow stations that fall into this situation to expand beyond their DTV Table Appendix B facilities to the extent necessary to address the difference between the theoretical facilities specified in the new DTV Table Appendix B and the actual facilities which they are able to build?[14]

To respond most directly to the questions posed by the *Notice*, a large number of Univision stations were assigned out-of-core transitional DTV channels, and some have no DTV channel at all. All of these stations must now construct new DTV facilities on a permanent in-core channel. These stations fall into one of two categories. The first category includes stations building a DTV facility to operate on the station's current analog channel, and the second category includes stations building a DTV facility on an in-core channel the station has not previously occupied. Each group faces similar, though not identical, issues in attempting to build out DTV facilities on its permanent channel. These issues are discussed below.

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[14] *Notice* at ¶ 93 (footnote omitted). The DTV table of allotment facilities that would establish a station's modification boundaries under the proposed freeze were derived by the FCC staff through a computer analysis of the coverage certified by licensees in November of 2004 for the limited purpose of facilitating the DTV channel election process. At the time of certification, a station's choices were sharply limited. A station could certify to existing licensed DTV facilities, the facilities authorized by its Construction Permit or by its Special Temporary Authority, or the Commission's 1997 replication parameters. Licensees could not, for example, specify the coverage area of their analog channel, even if the station ultimately intended to move its digital service to its analog channel. Indeed, the licensee could not specify any facilities specifically planned for post-transition operation in the certification process that were not among the very limited options permitted. At the time, these limitations streamlined the election process. However, as discussed in these Comments, universally requiring *all* stations to now fit within this relatively arbitrary and outdated operating envelope is counterproductive to completion of the transition and to the provision of broadcast service to the public.

1. The Proposed Freeze Would Effectively Prevent a Station Moving to Its Analog Channel for Permanent Digital Operations From Utilizing Its Existing Analog Antenna

Stations modifying an existing broadcast facility to operate on its permanent digital channel could have to replace or modify the antenna, the transmission line, the mask filter, and the transmitter. Both the cost and complexity of the buildout are reduced when a station can minimize the number of these items that must be replaced or modified, particularly with regard to the antenna and transmission line, which require tower riggers. While all installation resources will be stretched thin in the eighteen months leading up to February 2009, tower riggers are already in short supply, and that shortage is only going to grow worse.[15]

It is therefore a "no-brainer" for a station moving its permanent DTV operations to its analog channel to use its existing analog antenna and transmission line. The need for tower riggers can be avoided entirely, and the complexity of the work on the ground is reduced, increasing the likelihood that it can be done by station personnel rather than having to bring in outside installation specialists, who will also be in short supply.

Using the analog antenna has the enormous additional benefit of easily replicating the station's analog service area, since the antenna pattern will be unchanged. As a result, no analog viewer should lose access to the station when it implements its permanent DTV operations in 2009. This important fact, along with the reduced need for scarce installation resources and equipment, and the corresponding reduced cost to the station, make use of the analog facilities a winner for the station, the public, and the Commission by promoting an exceptionally smooth transition that minimizes the possibility of a February 2009 train wreck caused by a shortage of broadcast equipment and installation resources.

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[15] *The Digital Transition: The Rubber Meets the Road* (ASSOCIATION FOR MAXIMUM SERVICE TELEVISION) March 12, 2007.

Unfortunately, in many cases, particularly where a station was unable to co-locate its interim DTV facilities with its analog facilities, use of a station's analog antenna would place a portion of that station's signal outside its allotted DTV contour, ironically by duplicating the existing analog contour. Continuation of the freeze on applications proposing service outside the allotted DTV contour would therefore prevent use of the existing analog antenna unless the station reduces power in all directions in order to keep the DTV signal within the allotted DTV contour. This is a perverse result, as the reduction in power serves only to withdraw an existing broadcast service from large numbers of viewers in February 2009, in violation of the Commission's decade-long quest for service replication.

Univision station WOTF-TV in Melbourne, Florida is an example of how universal application of the freeze will be harmful to stations returning to their analog channel. WOTF-TV serves the Orlando-Daytona Beach-Melbourne, Florida market, with its analog transmission facility located at the Bithlo antenna farm near Orlando. However, the station's transitional DTV facility is located 35 kilometers from the station's analog transmitter site. The station had planned and equipped for an overnight transition to permanent DTV operation on its analog channel using its analog transmitter site and antenna. However, if now required to comply with the proposed freeze in constructing its permanent DTV facilities, the station would have to construct its permanent channel facilities at its transitional DTV site 35 kilometers away, only to later apply to move back to its analog antenna and site after the freeze is lifted. In the meantime, approximately 176,000 analog viewers will lose the station's Spanish-language programming in February 2009, including news and public safety information, in order for the station to comply with the proposed freeze.

While Univision appreciates the Commission's desire to expedite the processing of applications for operation on permanent DTV channels by avoiding any interference analysis, application processing will not be the bottleneck of the transition – the bottleneck will be facilities construction. Requiring construction of unnecessary facilities which create a service loss to 176,000 viewers may expedite the processing of applications, but it will be devastating to the DTV transition itself.

2. The Freeze Would Prevent a Station Moving to a New DTV Channel From Using an Existing Multi-Station Antenna Already Located at the Station's Transmitter Site

In keeping with the need, where possible, to utilize existing antennas to minimize cost, disruption of service, and the use of scarce installation equipment and personnel, stations moving to a new channel in 2009 would often prefer to use an existing multi-station antenna at their existing site. This avoids the need to design, manufacture and install a new antenna whose sole purpose is to conform to the DTV table of allotments in 2009, particularly where the station plans to later build a different facility after the freeze is lifted.

In addition, digital operation may not be feasible at the DTV table of allotments site in some cases. For example, the effective radiated power specified in the table may not be achievable with the tower and electrical facilities available at the site specified in the DTV table of allotments. Under these circumstances, relocation to a nearby site where such facilities are readily available, readily installed, or already exist (*e.g.*, an existing multi-station antenna) would make completion of the transition both possible and cost-effective.

Unfortunately, because the antenna pattern of such a multi-station "panel" antenna will almost always vary from a station's DTV allotment contour,[16] the proposed freeze would prevent

[16] The proposed freeze will create additional issues for many stations, as attempting to match a pattern specified in the final DTV table of allotments while moving to a new channel creates difficult issues in the real world. First, for most of the stations implementing DTV on a new channel or flash cutting on

use of such an antenna unless the affected station significantly reduces its power in order to wedge its permanent DTV signal within the contour established by the table of allotments. This would of course reduce broadcast service to the public unnecessarily, or force the station to forgo this simple solution and instead spend money and scarce installation resources acquiring and installing largely redundant equipment solely to match the station's DTV allotment.

For example, Univision station WGBO-TV currently provides DTV service from atop the John Hancock Center in Chicago on channel 53 using a directional antenna with a customized pattern permitting the station to stay within interference constraints for that channel. However, when it moves to its elected channel 38, which lacks such constraints, there is a multi-station panel antenna already available at the John Hancock Center that WGBO-TV could use for its permanent digital service. Not surprisingly, this antenna's radiating characteristics are different from the those of the current customized antenna. In order to comply with the freeze while using the multi-station antenna, WGBO-DT would be forced to reduce power **by 95%** (from 137 kW to 7.1 kW), resulting in a loss of service to approximately 472,000 current analog viewers.

In contrast, were WGBO-TV exempted from the freeze in moving its DTV facilities to an in-core channel, it could operate from the existing multi-station antenna with a power of 700 kW, actually improving rather than reducing service to the public.[17] Given the extreme complexity and delays of adding or replacing antennas at space-limited sites like the John Hancock building, the Sears Tower, or the Empire State Building, making use of an existing multi-station antenna is

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their analog channel, the DTV table of allotment facilities are not facilities that they specified to the Commission, but rather were derived by FCC staff based upon transitional DTV authorizations, making the DTV table of allotments antenna radiation patterns largely hypothetical. Second, it is frequently difficult, if not impossible, for a VHF directional antenna to duplicate exactly the directional pattern originally designed for a transitional UHF antenna. Even where a station proposes to operate on its new channel using its existing panel antenna, panel antennas have different radiation characteristics when used on different channels. A station changing DTV channels on such an antenna faces an unavoidable change in directional radiation details, even when the overall pattern shape is similar.

[17] This figure is based upon a 0.5% interference limit.

beneficial to everyone, particularly where it preserves space for other broadcast stations to use the common site. Unfortunately, application of the proposed freeze to such stations would prevent all of these benefits from accruing.

3. As Stations Moving From Out-of-Core Transitional Allotments and Singleton Stations Have Not Had an Opportunity to Optimize Their DTV Coverage, a Universal Freeze Would Unnecessarily Harm Such Stations and the Public

The stations assigned out-of-core DTV facilities by the Commission have been greatly disadvantaged compared to their competitors who were assigned in-core DTV channels in 1997 and who therefore have already been able to build out maximized DTV facilities on their permanent DTV channel. First, stations with out-of-core DTV channel assignments were required to build DTV facilities on out-of-core channels while knowing they would later be forced to build new facilities when assigned a permanent DTV channel. Second, in 2002 the Commission imposed a freeze on applications seeking to maximize DTV facilities on channels 52-59, and then expanded the freeze to include channels 60-69 in 2003, preventing stations assigned to any out-of-core DTV channel from maximizing on their transitional channel.[18] Third, by preventing these stations from specifying an optimized coverage area in filing the Form 381 (since the earlier freezes prevented such stations from having a maximized construction permit in hand on which to base an elected contour protection), and then using the Form 381 election to define those stations' permanent allocated operating parameters, these stations, unlike their competitors, never had an opportunity to optimize their coverage area. Even had maximization of out-of-core DTV facilities not been curtailed, it would have made little sense to spend the money to do so, given the short lifespan of an out-of-core facility and the need to conserve financial resources to later build a permanent in-core digital facility.

[18] *See* Public Notice, *Freeze on the Filing of TV and DTV "Maximization" Applications in Channels 52-59*, DA 02-1440 (June 18, 2002); Public Notice, *Freeze on the Filing of TV and DTV "Maximization" Applications in Channels 60-69*, DA 03-46 (Jan. 24, 2003).

While this result is certainly an inequitable one for the affected stations, it is the public that will be most harmed when they are deprived of service because these stations have been prevented from adapting their permanent channel coverage areas to the needs of the public. If the *Notice*'s proposal to apply a universal freeze is adopted, stations whose only sin was having the misfortune to be assigned an out-of-core DTV channel will be required to build new inferior facilities, and then to rebuild those facilities yet a third time after the freeze is lifted and they have their first opportunity in seven years to optimize their coverage for their local public. Beyond the expense, delay, and the additional construction burdens, these stations face the additional risk that when the freeze is lifted for all stations, their efforts to optimize coverage will be precluded by competing modifications sought by stations that had the opportunity to maximize years ago.

Singleton stations lacking a paired DTV channel face a similar predicament, as they also have had no opportunity to optimize their currently non-existent DTV facilities.[19] Moreover, to the extent their analog coverage has been constrained by interference limitations on their analog channel that will disappear in 2009, it again makes little sense to require them to apply for and build a handicapped DTV facility only to have to rebuild it later when they are finally allowed to apply for optimized facilities. It also makes little sense to force the public to suffer inferior coverage while that multi-step process occurs.

An example of this is Univision station KTFQ-TV in Albuquerque, New Mexico. KTFQ-TV is a singleton station that will move from analog channel 14 to DTV channel 22 in 2009. The channel 14 facility is located at a tower on the desert floor, while all other television stations serving the market are located at the Sandia Crest mountaintop antenna farm. KTFQ-TV

[19] The *Notice* itself recognizes that singleton stations "may encounter different challenges and circumstances that deserve special consideration in this review." *Notice* at ¶ 29.

could operate, post-transition, at up to the maximum permissible effective radiated power for UHF DTV stations at Sandia Crest using a non-directional antenna without causing 0.5% interference to any other station. Such operation would provide the station with comparable coverage to every other Albuquerque television station, while facilitating the DTV transition for viewers and MVPD providers by consolidating all DTV stations at one transmitter site at the end of the DTV transition. If, however, the proposed freeze is applied to singleton station KTFQ-TV, the station will have to first construct a DTV facility at it current site and then later build new facilities at Sandia Crest after the freeze is lifted.

Adding insult to injury, KTFQ-TV would have difficulty complying with the freeze in any event. The manufacturer of the station's analog antenna, Dielectric Communications, has informed Univision that it cannot shape a radiation pattern to meet the proposed DTV table of allotment parameters, by theoretical design or by subsequent adaptation in the laboratory. As a result, if required to comply with the freeze, KTFQ-TV's only choice will be to reduce power to stay within the DTV table of allotment parameters, depriving existing analog viewers of service when the transition occurs and further aggravating the station's competitive disparity.

While the basis presented in the *Notice* for the proposed freeze is that "we must first ensure that all stations can at least provide digital service to their analog viewers by the transition date before considering new maximization applications,"[20] universal application of such a freeze will have the opposite result, depriving existing analog viewers of continued service in February 2009. If the Commission adopts the proposed freeze, it must do so in a far more selective manner to prevent such harm.

[20] *Notice* at ¶ 99.

B. The Commission Can Ameliorate the Most Significant Harms of Its Proposed Freeze, While Maintaining Any Benefit, by Exempting a Limited Set of Applications for Permanent DTV Channels From the Freeze

While the Commission's proposed freeze appears to be solely for the purpose of expediting review of permanent channel DTV applications by avoiding the need to perform interference analysis, the resources necessary to perform such analysis for the limited number of exempt stations proposed in these comments are miniscule compared to the resources that will be needed to design, manufacture and install unnecessary broadcast facilities solely to comply with the freeze. More importantly, the burden of performing limited interference analysis is insubstantial compared to the reductions in service that compliance with the freeze will create.

In addition, any "savings" of processing resources would at best be a short term gain, as the freeze would require affected stations to file two applications (a freeze-compliant application and a post-freeze optimization application) rather than a single application that brings optimized DTV service to the public sooner. Even in the short term, however, processing requests for waivers of the freeze by stations unable to meet the DTV table of allotments parameters would likely consume more resources than merely performing routine interference analysis for freeze-exempt applications.

Even if universal application of the proposed freeze actually were critical to expediting the processing of applications to build permanent channel DTV facilities, quickly granting applications for facilities that cannot be built by February 2009 due to an overloaded construction pipeline serves no purpose. Under these circumstances, it is impossible to justify universal application of the proposed freeze.

Should the Commission choose to adopt its freeze proposal, it makes sense to create an exemption for a limited set of applications that would (i) minimize the need for broadcast equipment and installation resources, particularly tower riggers; (ii) avoid loss of service

replication; or (iii) improve service to the public by stations that have not previously been given the opportunity to optimize their DTV signal contour. Such an approach coincides perfectly with the *Notice*'s request for comment "on ways in which stations could seek expanded facilities at this time without delaying the transition or overburdening the scarce resources needed by other stations to transition."[21] While it is difficult to estimate the precise number of stations whose factual circumstances would result in an application qualifying for an exemption, the number is limited. Moreover, regardless of what that number is, the expenditure of resources necessary to confirm an exempt applicant's interference showing will always be small in comparison to the harm done to the transition by forcing that same station to either sacrifice service to viewers or clog the DTV construction pipeline with unnecessary facilities.

This approach therefore strikes a reasonable balance between allowing the specific types of modifications necessary to maximally protect broadcast service to the public and efficiently complete the transition, without bogging down the Commission's processing of permanent channel DTV applications. In addition, by allowing the Commission to process a limited number of critical, but non-freeze-compliant applications now, Univision's proposals will reduce the total number of applications the Commission must ultimately process (by avoiding the need for many stations to sequentially file both a freeze-compliant and a post-freeze application), while also preventing the Commission from later being buried with "facilities optimization" applications on the day the freeze is finally lifted. Avoiding the need for stations to build a freeze-compliant facility before being permitted to build an optimized facility after the freeze is lifted will also reduce costs, reduce the need for equipment design, manufacturing, and installation resources, and by allowing certain stations to optimize their facilities now, prevent a

[21] *Notice* at ¶ 99.

second period of extreme equipment and installation shortages from occurring when the freeze is lifted and a flood of stations nationwide seeks to modify facilities.

Univision therefore urges the Commission to exempt from any continuation of the application freeze those applications from stations that:

- Propose to use that station's analog antenna, or an existing multi-station antenna located at that station's current transmitter site;
- Are moving from an out-of-core DTV channel to an in-core channel or are singleton stations constructing their first DTV facility.

In all of these cases, the applicant would of course be required to demonstrate that its proposed facilities would not create impermissible interference, with singleton and out-of-core stations being permitted to "grandfather" existing levels of interference caused by analog operations on their permanent DTV channels in making that showing.[22] This "grandfathering" concept is discussed in detail in Note 22, s*upra*.

In each of the exempt circumstances, there is an important public interest served by declining to apply the freeze, whether it is ensuring that the DTV facilities necessary to complete the transition can actually be built in time, ensuring optimal and continued broadcast service to the public, or avoiding unnecessary expense and delay in completing the DTV transition. In

[22] As discussed elsewhere in these Comments, because singleton stations and stations with out-of-core DTV channel assignments were not permitted to maximize their DTV coverage areas like competing stations, they were prevented from taking advantage of the Commission's previously more liberal 2% interference limit. If such stations are to be able to construct competitive in-core facilities in spectrum congested markets, they will need more flexibility than the 0.5% limit proposed in the *Notice*. Univision therefore proposes that singleton stations and stations with out-of-core DTV facilities be permitted to "grandfather" interference created by the analog facility which previously operated on that station's permanent DTV channel. For example, if a DTV station is currently receiving 0.8% interference from a channel 22 analog station, a station assigned channel 22 as its permanent DTV channel (which would often be the channel 22 analog station) should be permitted to continue to cause up to 0.8% interference. This would not increase total interference above what currently exists (with total interference in many cases dropping because of other station moves), and would permit the singleton/out-of-core station to achieve coverage comparable to the analog station it is replacing. This proposal is no different than the interference grandfathering the Commission is providing to stations fortunate enough to have been assigned an in-core transitional DTV channel which they are retaining as their permanent DTV channel. *See* 47 C.F.R. §73.623(c).

many cases, multiple interests will be promoted, as when a station moves its out-of-core DTV facilities to its in-core analog antenna. Promoting each of these interests will help to ensure a smooth and successful DTV transition.

III. To Further Reduce the Strain on Construction-Related Resources in the Time Leading Up to February 17, 2009, the Commission Should Permit Stations to Remain on Their Transitional DTV Channel for Up to 12 Months Where No Impermissible Interference Would Result

In any effort to reduce the strain on broadcast equipment and installation resources, it makes sense to spread out the need for such resources over time as much as possible. However, the Commission's ability to do so is curtailed by the statutory requirement that all full-power stations cease analog broadcasting by February 2009 and vacate channels 52-69. As a result, singleton stations building their first DTV facility, as well as stations statutorily required to move from their out-of-core DTV channel by February 17, 2009, have no choice but to construct their new facilities by that date. However, this leaves a substantial number of stations that are already operating an in-core DTV facility, but which are ultimately moving to a different in-core channel, that are unaffected by the statutory deadline. The only reason these stations would need to move to their new channel by February 2009 is if their transitional DTV channel is the allotted permanent DTV channel of another station required to move, or if remaining on their transitional DTV channel would cause impermissible interference to a new DTV facility.[23]

The Commission indicated its interest in such an approach in the *Notice*, which proposes "to allow these stations to choose to temporarily remain on their pre-transition DTV channel" as long as they provide service to their analog coverage area and cause no more than 0.5%

[23] Under this proposal, a station that receives, rather than generates, interference by remaining on its transitional DTV channel would be permitted to remain and accept that interference. The period during which any portion of its audience might be affected would be temporary, and the licensee is in the best position to judge whether the interference is significant enough to justify moving to its permanent DTV channel earlier than originally planned.

interference to other stations.[24] While the Commission may need to be more flexible regarding analog replication (*e.g.*, there may be situations in which a station's freeze-complaint permanent channel DTV facilities would not be able to provide service to its entire analog coverage area either), Univision supports allowing stations to remain on their transitional in-core DTV channel for up to twelve months following February 17, 2009 where no new interference is created. Doing so would significantly reduce the number of stations needing to rush to build new facilities by February 2009.

Of the approximately 637 stations that will be required to implement some form of facilities change for the transition (*e.g.*, a channel change or a flash cut to digital on a station's analog channel), far less than half (251) are required by statute to complete those changes by February 17, 2009. Allowing flexibility for the stations unaffected by the statutory mandate would free up equipment manufacturing and installation resources for those stations that *must* move by February 17, 2009 if the Commission is to meet its statutory mandate of terminating full-power analog broadcasting and the use of channels 52-69 by that date.

There is little downside to permitting stations to temporarily remain on their transitional in-core DTV channel. To the extent this approach lacks the mental "neatness" of a nationwide simultaneous move, it also lacks the chaos that would accompany such a move. In fact, given the public's reliance on broadcasters for weather and other emergency warnings, a strong case can be made that having all stations move simultaneously, particularly where some stations will have to go dark for days or weeks to swap out their analog equipment, is a public safety risk. Such an outcome would be inconsistent with the Commission's recent reaffirmation of its

[24] *Notice* at ¶ 90.

commitment that all viewers, specifically including non-English speakers, have consistent access to public safety information.[25]

Univision station KUVE-TV in Green Valley, Arizona provides Spanish-language DTV service on channel 47 but was assigned channel 46, its analog channel, as its permanent channel in the DTV table of allotments. The existing transmitter building does not have room for a new, higher-power DTV transmitter and its associated cooling apparatus until the analog transmitter is removed. Space expansion is impractical, and may be impossible because of U.S. Forest Service restrictions on construction to protect the Spotted Owl. However, the station's continued use of channel 47 would not cause new interference to any DTV operation, and would allow the analog equipment to be removed and replaced in an orderly manner after analog broadcasting ceases, the snow melts, and both the demand and associated cost of installing new broadcast equipment has moderated.

To give an idea of the reduction in pre-transition construction that adoption of this proposal could create, Univision owns ten stations that will be moving to a new DTV channel from an in-core transitional DTV channel. An interference analysis indicates that nine of the ten could remain on their transitional DTV channel beyond February 2009, and the tenth would need to move only because a third party has elected that station's transitional DTV channel for permanent DTV operation.

It therefore appears that the opportunity to reduce the strain on the most vital resources for the transition is substantial. As a result, the Commission might not just want to permit, but to encourage, stations that can temporarily remain on their transitional DTV channel to do so. This could best be accomplished by having the Commission's staff perform an OET-69 analysis

[25] *See, e.g., In the Matter of Review of the Emergency Alert System,* EB Docket 04-296, FCC 07-109 (rel. July 12, 2007).

against the final DTV table of allotments and release a public notice listing stations that can remain on their transitional DTV channel without causing interference.[26] Alternatively, stations could request Special Temporary Authority to continue using their transitional DTV facilities where they could either certify a lack of interference or submit OET-69 data printouts to demonstrate no new interference would be created.

Regardless of the process, spreading the construction of permanent channel DTV facilities over 24 months rather than 12 months will permit a more orderly, less disruptive, and more cost-effective transition. This is particularly true where the extended transition period permits a station to continue to operate its analog facilities until February 17, 2009, and then remove the analog equipment before installing its permanent channel DTV equipment in the same location. Because of the extended transition period, such stations would be able to continuously serve the public throughout the transition with no downtime. More importantly, moving a significant portion of the demand for broadcast equipment and installation resources to the period after February 17, 2009 will be critical if the stations which must move to new channels by February 2009 are to be able to meet that statutory mandate without depriving the public of service for an extended period of time.

IV. The Combined Effect of Univision's Proposals Will Assist All Stations in Completing the DTV Transition While Ensuring Minimal Disruption of the Public's Broadcast Service

By focusing on the greatest obstacle to the completion of the DTV transition – the tremendous demand for broadcast equipment design, manufacturing, and installation in the months and weeks leading up to February 17, 2009 – Univision's proposals herein will ease the

[26] To the extent a station applies to cover an area outside of its final DTV table of allotments parameters pursuant to the freeze exemptions discussed above, it would be required to accept any temporary interference in that expanded area caused by a "holdover" station. Were it not for the exemption, the public in that area would not be receiving the broadcast service at all, so temporarily receiving interference is minimally harmful.

burden on all participants in the DTV transition, including the public, the Commission, and broadcasters. Stations moving back to their analog channel will be able to utilize their existing antennas to replicate analog coverage and minimize the use of equipment and installation resources, disruption of broadcast service, and costs. Stations moving their DTV operations from out-of-core and singleton stations will be able to utilize the added flexibility of the freeze exemption to overcome obstacles to serving their viewers that have accumulated over the course of the DTV transition process. Stations with a paired in-core DTV channel moving to a new channel will be able to utilize the added flexibility of remaining on their transitional DTV channel for up to twelve months to facilitate an orderly transition. Finally, all stations will benefit from alleviating the shortages of broadcast equipment and installation personnel that would otherwise occur.

Using Univision's stations as a microcosm of the broadcast industry, the advantages of these proposals are apparent. There are 22 Univision stations relocating to new post-transition channels, twelve of which are statutorily required to move by February 17, 2009. Under the *Notice*'s proposed freeze, fourteen of these stations would require custom antenna development, manufacture, and installation, yet only six stations would have such needs if the proposed freeze exemptions are implemented. At the eight stations whose ability to use an existing antenna is constrained by the freeze, the alternative to designing, building, and installing a custom antenna is to reduce power by at least 60% at six of the stations and to reduce power by at least 20% at the remaining two stations to keep the signal contour within the DTV table of allotments parameters. More than *1.8 million viewers* would be deprived of service by such power reductions at just these eight stations.

As discussed above, of the ten remaining Univision stations that are not statutorily required to move by February 17, 2009, nine could temporarily remain on their DTV transition channel without causing impermissible interference, reducing stress on transition resources and providing for a more orderly transition.

The combined effect of Univision's proposals is not just to make the transition less painful for all parties, but to make it possible for broadcasters and the Commission to meet the February 17, 2009 statutory deadline in the short time remaining. That the proposals also promote the availability of broadcast service to the public, both before and after that date, is icing on the cake.

CONCLUSION

For the reasons discussed above, the Commission should modify its proposals for transitioning stations to their permanent DTV channels by: (1) exempting from the Commission's proposed facility freeze those applications for stations moving to their analog channel that wish to utilize their existing analog antenna, and those applications for stations seeking to use an existing multi-station antenna for their permanent digital facilities, where impermissible interference will not be created; (2) exempting from the proposed freeze those applications by stations without an interim DTV channel, as well as applications by stations moving from their assigned out-of-core DTV channel to an in-core channel, where impermissible interference beyond grandfathered levels will not be created; and (3) permitting stations moving to a new DTV channel to continue to operate on their transitional DTV channel for twelve months following the transition date where the interim DTV channel is in-core and no new interference would be created. These three changes, two of which merely contemplate

processing modification applications in the normal course, and the last of which maintains the status quo for twelve additional months where no interference would occur, will greatly facilitate the prompt and efficient conclusion of the transition.

Respectfully submitted,

UNIVISION COMMUNICATIONS INC.

By: /s/ Scott R. Flick

Scott R. Flick
Emily Jane Helser

Its Attorneys

Pillsbury Winthrop Shaw Pittman LLP
2300 N Street, NW
Washington, DC 20037
(202) 663-8000

Karl D. Lahm, P.E.
Engineering Manager
Univision Television Group, Inc.
P.O. Box 647
Lake Villa, IL 60046
(847) 245-8699

Dated: August 15, 2007